### **SPECIFICATIONS AND SERVICE DATA**

# 1. Engine Electrical

## A: SPECIFICATIONS

#### 1. 2200 cc MODEL

Item			Designation		
Туре			Reduction type		
Starter	Model		I	MT	AT
			TN128	000-8311	TN128000-8321
	Manufacturer		NIPPONDENSO TENNESSEE		
	Voltage and output			– 1.0 kW	12 V — 1.4 kW
	Direction of rotation		Counterclockwise (when observed from pinion)		
	Number of pinion teeth			8	9
	No-load characteristics	Voltage	11 V		
		Current	90 A or less		
		Rotating speed	3,000 rp	m or more	2,900 rpm or more
	Load characteristics	Voltage	8 V		
		Current	280 A	or less	370 A or less
		Torque	9.8 N·m (1.0	kg-m, 7.2 ft-lb)	13.7 N·m (1.4 kg-m, 10.1 ft-lb)
		Rotating speed	900 rpr	n or more	880 rpm or more
		Voltage	5 V		V
	Lock characteristics	Current	800 A	or less	1,050 A or less
		Torque	:	27.5 N·m (2.8 kg-m, 20.3 ft-lb) or more	
	Туре		Rotating-field three-phase type, Voltage regulator built-in type		
	Model		LR185-701H		
	Manufacturer		HITACHI AUTOMOTIVE PRODUCTS		
	Voltage and output		12 V — 85 A		
	Polarity on ground side		Negative		
Generator	Rotating direction		Clockwise (when observed from pulley side)		
	Armature connection		3-phase Y-type		
	Output current		1,500 rpm — 35 A or more		
			2,500 rpm — 62 A or more		
			5,000 rpm — 82 A or more		
	Regulated voltage		14.5 <sup>+0.3</sup> / <sub>-0.4</sub> V [20°C (68°F)]		
	Model		FH0137-01R		
Ignition coil	Manufacturer		DEMCO		
and ignitor assembly	Primary coil resistance		0.73 Ω±10%		
	Secondary coil resistance		12.8 kΩ±15%		
	Insulation resistance between primary terminal and case		More than 10 $M\Omega$		
Spark plug	Type and manufacturer		RC10YC4 CHAMPION		
			Alternate	BKR6E-11 K20PR-U11	NGK NIPPONDENSO
	Thread size mm		14, P = 1.25		
	Spark gap mm (in)		1.0 — 1.1 (0.039 — 0.043)		

### 2. 2500 cc MODEL

Item			Designation		
Туре			Reduction type		
Starter	Model		MT TN128000-8311	AT TN128000-8321	
	Manufacturer		NIPPONDENSO TENNESSEE		
	Voltage and output		12 V — 1.0 kW 12 V — 1.4 kW		
	Direction of rotation		Counterclockwise (when observed from pinion)		
	Number of pinion teeth		8 9		
	No-load characteristics	Voltage	11 V		
		Current	90 A or less		
		Rotating speed	3,000 rpm or more	2,900 rpm or more	
	Load characteristics	Voltage	8 /	/	
		Current	280 A or less	370 A or less	
		Torque	9.8 N·m (1.0 kg-m, 7.2 ft-lb)	13.7 N·m (1.4 kg-m, 10.1 ft-lb)	
		Rotating speed	900 rpm or more	880 rpm or more	
	Lock characteristics	Voltage	5 V		
		Current	800 A or less	1,050 A or less	
		Torque	27.5 N·m (2.8 kg-m, 20.3 ft-lb) or more		
Generator	Туре		Rotating-field three-phase type, Voltage regulator built-in type		
	Model		LR185-701H		
	Manufacturer		HITACHI AUTOMOTIVE PRODUCTS		
	Voltage and output		12 V — 85 A		
	Polarity on ground side		Negative		
	Rotating direction		Clockwise (when observed from pulley side)		
	Armature connection		3-phase Y-type		
	Output current		1,500 rpm — 35 A or more 2,500 rpm — 62 A or more 5,000 rpm — 82 A or more		
	Regulated voltage		14.5 <sup>+0.3</sup> / <sub>-0.4</sub> V [20°C (68°F)]		
Ignition coil	Model		FH0047-01R		
	Manufacturer		DEMCO		
	Primary coil resistance		0.73 Ω±10%		
	Secondary coil resistance		12.8 kΩ±15%		
	Insulation resistance between primary terminal and case		More than 10 M $\Omega$		
Spark plug	Type and manufacturer		PFR5B-11 NGK		
	Thread size mm		14, P = 1.25		
	Spark gap mm (in)		1.0 — 1.1 (0.039 — 0.043)		